AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1.   (currently amended): A method of estimating the volume of a three-dimensional object having a known contour, the object being an organ or organ part of a body, the method comprising the steps of:

acquiring a plurality of two-dimensional images of the organ or organ part that defines the object;

defining a given number of base points on a contour of the object and in a first image of the object, the given number of base points defining facets whose vertices are the base points and which represent[[s]] a first three dimensional shape of the object defined by facets whose vertices are the base points;

defining each facet of the first shape by three segments wherein each segment is common to two adjacent facets;

creating second rank points adapted to on the contour of the object by dividing the segments so as to constitute a second three-dimensional shape closer to the contour of the object than the first shape, the creation of each second rank point resulting in the creation of at least two new facets and at least three new segments;

defining third or more rank points adapted to on the contour of the object by iteratively dividing each new segment into subsegments, so as to represent a third or more three-dimensional shape closer to the contour of the object than the second three-dimensional shape, the creation of the third or more rank points resulting in the creation of at least two additional new facets and at least three additional new segments, the third or more three-dimensional shape forming a final shape from the plurality of facets defined or created, the plurality of facets defining a plurality of triangular surfaces having known vertex points; and

~~calculating~~ estimating the volume of the <u>final shape</u> ~~third or more three-dimensional shape of the object from the images of the object~~ <u>using the plurality of triangular surfaces and making available to a user of medical imagery the estimation of the volume of the final shape which is representative of the volume of the three-dimensional organ or organ part</u>.

2.   (previously presented): The method according to claim 1 wherein the contour of the object is known from images taken along parallel sections.

3.   (previously presented): The method according to claim 1 wherein a plurality of images provides a description of the three-dimensional contour.

4.   (previously presented): The method according to claim 1 wherein each segment is divided by two.

5.   (previously presented): The method according to claim 2 wherein each segment is divided by two.

6.   (previously presented): The method according to claim 3 wherein each segment is divided by two.

7.   (previously presented): The method according to claim 1 wherein the position of each of the second rank point is a function of the position of the first two adjacent facets.

8.   (previously presented): The method according to claim 2 wherein the position of each second rank point is a function of the position of the first two adjacent facets.

9.   (previously presented): The method according to claim 3 wherein the position of each second rank point is a function of the position of the first two adjacent facets.

10.   (previously presented): The method according to claim 4 wherein the position of each second rank point is a function of the position of the first two adjacent facets.

11.   (previously presented): The method according to claim 5 wherein the position of each second rank point is a function of the position of the first two adjacent facets.

12.   (previously presented): The method according to claim 6 wherein the position of each second rank point is a function of the position of the first two adjacent facets.

13.   (previously presented): The method according to claim 7 wherein the position of each second rank point is a function of the position of the first two adjacent facets.

14.   (previously presented): The method according to claim 1 wherein the segments are divided into further additional subsegments until the change in volume for each further iteration resulting from a given division reaches a volume according to the desire of the operator or as defined by preset conditions.

15.   (previously presented): The method according to claim 1 wherein the given number of base points is six.

16.   (canceled).

17. (previously presented): The method according to claim 1 wherein any of the points of the three-dimensional shapes can be modified.

18. (previously presented): The method according to claim 1 wherein any of the points are defined manually.

19. (previously presented): The method according to claim 1 wherein there is a change in the calculated volume which defines a threshold below which the iterative division is stopped.

20. (previously presented): The method according to claim 1 wherein each segment or subsegment is divided by a perpendicular to the segment or subsegment.

21. (previously presented): The method according to claim 1 wherein the position of each of the second ranks is a function of the orientation of perpendiculars to the first two adjacent faces.

22. (previously presented): The method according to claim 1 wherein the segments are divided into further additional segments until the change in volume resulting from a given division is negligible.

23. (currently amended): The method according to claim 1 wherein subsequent to the calculation of the estimated volume of the object, the distribution of the density of the object in space is calculated.

24-25. (canceled)

26.   (previously presented): The method according to claim 1 wherein the three-dimensional shape is a tetrahedron.